



GLOSSARY FOR HAZARDOUS WASTE SITES

ABANDON -- Used in reference to wells, abandonment is a process by which a well is filled and sealed from top to bottom.

ACTIVATED CARBON -- A special carbon in powdered or granular form which attracts and holds organic molecules. It is often used to remove dissolved contaminants from water.

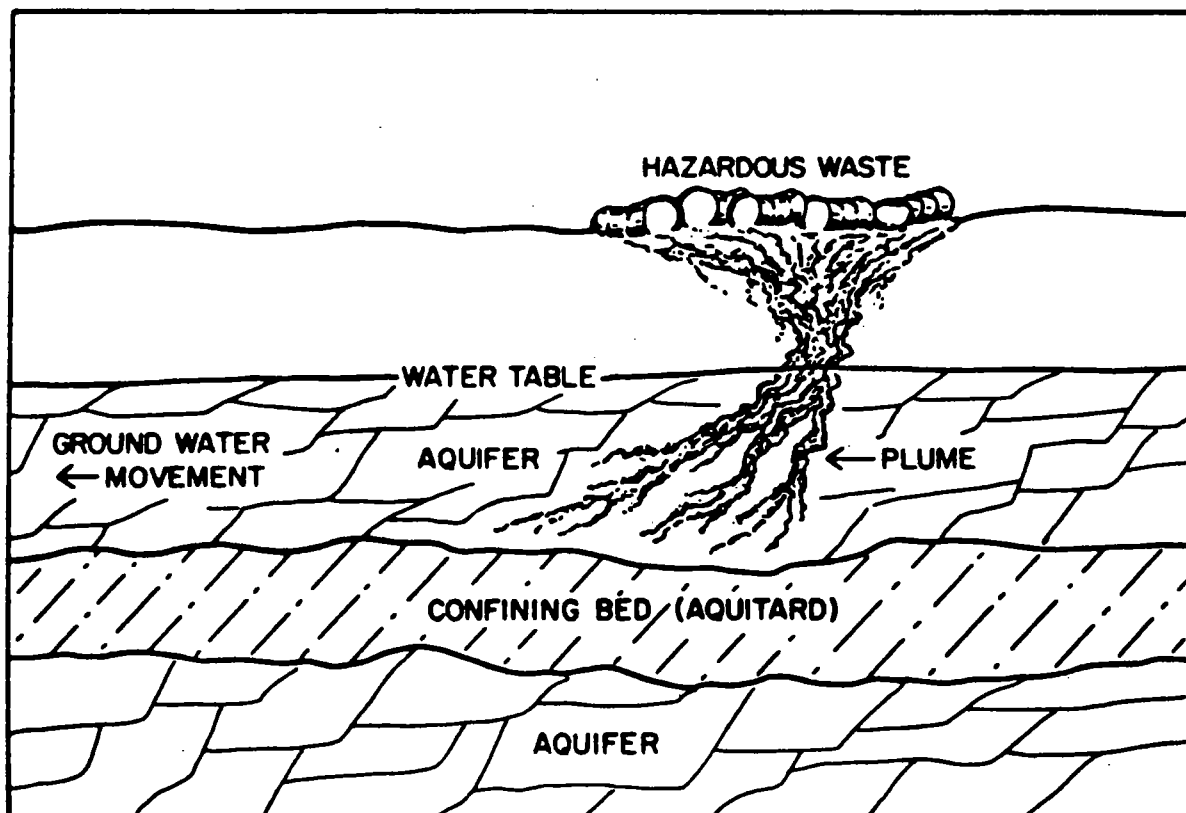
ADSORPTION -- The clinging of molecules to the surface of particles; the process by which activated carbon removes contaminants from water.

AERATION -- The process of mixing a liquid with air for purification by oxidation or evaporation of contaminants.

AQUIFER -- An underground bed or layer of soil, gravel or rock containing enough water to supply a well. Aquifers are not underground lakes or streams.

AQUITARD -- An underground bed or layer of soil, rock or clay through which water cannot easily pass because the material is not very permeable.

BARRIER WELLS -- Wells designed to interrupt the natural direction of ground water movement, sometimes used to control the spread of contaminants in an aquifer.



BENTONITE -- A clay material that swells when in contact with water.

CERCLA -- Comprehensive Environmental Response, Compensation and Liability Act, the federal Superfund administered by the U.S. Environmental Protection Agency.

CARCINOGEN -- An agent that can cause cancer.

CONFINING BED -- A layer of material with very low permeability (aquitard) which lies above an aquifer, trapping the water under pressure.

COST-EFFECTIVENESS -- The relationship between the cost of an activity and how well it does what is intended. The most cost-effective alternative would be the choice that effectively does the job at the lowest cost.

DRIFT -- Deposits of boulders, gravel, sand, clay or till moved and deposited by a glacier or by the water from a melting glacier.

ERLA -- Environmental Response and Liability Act, the Minnesota state Superfund.

EFFLUENT -- Liquid flowing out of a system. Effluent often refers to the water leaving a sewage treatment plant, but it may also refer to water flowing out of a system to remove contamination.

FEASIBILITY STUDY -- An investigation to determine which course of action should be taken, based on which is the most cost-effective. Often preceded by a remedial investigation.

GPM -- Gallons per minute. Used to describe well yields or water treatment capacity.

GRADIENT CONTROL SYSTEM -- A system of barrier wells designed to control the movement of contaminants in ground water.

GROUND WATER -- Naturally-occurring underground water, below the water table.

GROUT CURTAIN -- A wall of bentonite or similar material injected underground to retard horizontal flow of ground water in order to isolate or control contamination; slurry wall.

HEAVY METALS -- Metals with high molecular weights that are of concern because they are generally toxic to animal life if naturally-occurring concentrations are exceeded. Examples include mercury, chromium, arsenic and lead.

HYDROGEOLOGIC STUDY -- A study of an area's geology, ground water and ground water movement.

LATENT PERIOD -- The time interval between exposure to a carcinogen and the appearance of cancer.

MGD -- Million gallons a day, a measurement of well or treatment plant capacity.

uG/L -- Micrograms (1/1,000,000 gram) per liter. Equivalent to parts per billion.

MONITORING WELLS -- Wells used only or primarily for periodic testing purposes.

MULTI-AQUIFER WELLS -- Wells open to more than one aquifer. Such wells can be pathways for contaminants to reach deep ground water.

MUTAGEN -- A substance that causes genetic changes in humans or animals.

NG/L -- Nanograms (1/1,000,000,000 gram) per liter. Equivalent to parts per trillion.

NON-POINT SOURCES -- Pollution sources not controllable through end-of-the-pipe technology. Agricultural and urban runoff are prime examples.

PPB, PPT -- Parts per billion, parts per trillion. Ten ppb means 10 parts of a contaminant to one billion parts of water, etc.

PLUME -- The form of spreading contamination as it moves away from the source in the ground water.

REMEDIAL INVESTIGATION -- The study of sources, pollution pathways and the extent of contamination. Often followed by a feasibility study.

REMEDIAL INVESTIGATION → FEASIBILITY STUDY → REMEDIAL ACTION
(STUDY OF PROBLEM) (STUDY OF SOLUTIONS) (CORRECT THE PROBLEM)

REMEDIAL MEASURES -- Efforts to clean up or prevent further contamination.

SLURRY WALL -- See "grout curtain."

SOURCE CONTROLS -- Measures to control the source of contamination directly such as removal action or containment strategies.

SOIL BORINGS -- Borings to bring up samples of soil or rock from various levels to study for composition and/or possible contamination.

TERATOGEN -- A substance that causes defective development in fetuses (birth defects).

TILL -- Unsorted glacial drift not found in layers (see "drift").

TOXICITY -- The degree to which a substance is poisonous to plants to animals.

WATER TABLE -- The top surface of the aquifer nearest ground level.

More questions? Contact the MPCA Information Office at (612) 296-7373 or your nearest Regional Office -- Brainerd, (218) 828-2492; Detroit Lakes, (218) 847-1519; Duluth, (218) 723-4660; Marshall, (507) 537-7146; and Rochester, (507) 285-7343.

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